

The Pollinator Toxicology Lab in the Entomology Department at The Ohio State University -- Ohio Agriculture Research and Development Center in Wooster, OH, headed by Dr. Reed Johnson, possesses the unique combination of capabilities required to successfully investigate the effects of corn seed-treatment dust on honey bee hives in the field. Members of the lab have the requisite practical beekeeping expertise to move, manage and assess the health of honey bee colonies placed within range of fields being planted with seed-treated corn. The lab currently manages 20 honey bee hives that are immediately available for use in field experiments. Members of the lab also have experience assessing pesticide concentrations in bees using analytical chemistry tools, including GC-MS, Reversed Phase HPLC and LC-MS-MS, and have access to equipment for performing these analyses within the department. Lab members also have experience with pollen analysis, which will be a key skill in determining the floral resources utilized by honey bees during the corn planting season. The lab is currently conducting a survey of beekeepers in Ohio for which lab members were required to complete Institutional Review Board training on the handling and collection of location data and have experience performing spatial analyses using GIS. Dr. Johnson is currently planning a preliminary experiment for April 2013 in which pollen will be trapped, identified and analyzed from colonies foraging among the corn-dominated areas in central Ohio.